We claim:

1. An isolated antibody or binding fragment of an antibody which binds with a protein which is encoded by an isolated nucleic acid molecule, the complementary sequence of which hybridizes, under stringent conditions, to a nucleic acid molecule comprising nucleotides 54-593 of SEQ ID NO: 1.

2. The isolated antibody of claim 1, wherein said antibody is a monoclonal antibody.

3. The isolated antibody of claim 1, wherein said antibody is a chimeric antibody.

4. The isolated antibody of claim 3, wherein said chimeric antibody comprises a humanized antibody with a murine CDR region.

5. Hybridoma cell line which produces the monoclonal antibody of claim 2.

6. A method for screening for cancer in a sample, comprising contacting said sample with the isolated antibody of claim 1, and determining binding of said antibody to a target as an indicator of cancer.

7. The method of claim 6, wherein said cancer is melanoma, breast cancer, prostate cancer, lung cancer, hepatoma, ovarian cancer, thyroid cancer, bladder cancer, or lymphoma.

8. A method for determining presence of antibodies against a cancer associated antigen in a sample, comprising contacting said sample with an isolated protein encoded by a nucleic acid molecule which comprises nucleotide 54-593 of SEQ ID NO: 1, and determining binding of antibodies thereto as a determination of antibodies against a cancer associated antigen in said sample.

9. A method for determining regression, progression of onset of a cancerous condition comprising monitoring a sample from a patient with said cancerous condition for a parameter selected from the group consisting of (i) NY-ESO-1 protein, and (ii) a peptide derived from NY-ESO-1 protein, with an antibody which binds to (i) or (ii), wherein amount of said parameter is indicative of progression or regression or onset of said cancerous condition.

10. The method of claim 9, wherein said sample is a body fluid or exudate.

11. The method of claim 9, wherein said sample is a tissue.

12. The method of claim 11, wherein said antibody is labelled with a radioactive label or an enzyme.

13. The method of claim 11, wherein said antibody is a monoclonal antibody.

14. A method for treating a subject afflicted with a cancerous condition comprising administering to said subject an antibody which specifically binds to NY-ESO-1 protein or to an ESO-1 derived peptide expressed on a cancerous cell associated with said cancerous condition, said antibody being coupled to an anticancer agent, in an amount sufficient to treat said cancerous condition.

15. A method for treating a subject afflicted with a cancerous condition comprising administering to said subject an antibody which specifically binds to NY-ESO-1, said antibody being coupled to an anticancer agent, in an amount sufficient to treat said cancerous condition.

16. Isolated protein consisting of at least amino acids 10-121 and no more than amino acids 10-180 of the protein encoded

by the isolated nucleic acid molecule having the nucleotide sequence set forth in SEQ ID NO: 1.

17. The isolated protein of claim 16, consisting of amino acids 10-121.

18. The isolated protein of claim 16, consisting of amino acids 10-180.

19. The isolated protein of claim 16, wherein said protein is glycosylated.

20. Immunogenic composition comprising the isolated protein of claim 16, and a carrier.

21. A method for determining presents of antibodies against a cancer associated antigen in a sample, comprising contacting said sample with the isolated protein of claim 16, and determining binding to said protein as a determination of antibodies to a cancer associated antigen in said sample.